DEQ Offshore/Coastal Wind Regulatory Advisory Panel (Wind RAP)
July 7, 2010 Meeting
Draft Meeting Notes

Location: **DEQ Central Office, 2nd Floor Conference Room**
629 E. Main Street, Richmond, VA 23219

Start: 9:40 a.m.
End: 3:50 p.m.

RAP Leader/Facilitator: Carol Wampler, DEQ
Recorder: Beth Major, DEQ

RAP Members Present:
Thomas Numbers, ERM
Chad Smith, PBS&J
Guy Chapman (alternate), Dominion
Bob Mathias, City of VA Beach; VOWC
Chelsea Harnish, Ches Climate Action Network
Ray Fernald, DGIF
Larry Lombardi, City of Norfolk
Laura McKay (alternate), DEQ CZM
Marina Phillips, Kaufman & Canoles
Mark Swingle, VA Aquarium
Nikki Rovner, TNC
Remy Luerssen (alternate), JMU
Roger Kirchen, DHR
Ron Jefferson, Appalachian Power/AEP
Rick Weeks, DEQ
Bryan Watts, W&M/VCU
Tom Smith, DCR
Lyle Varnell, VIMS
James Casey, US Navy
Tony Watkinson, VMRC
Ken Jurman, DMME

RAP Members Absent:
John Daniel, Troutman Sanders
Larry Land, Virginia Assoc. of Counties
Dan Holmes, Piedmont Env. Council

Special Guests & Public Attendees:
David Paylor, DEQ Director
Maureen Matsen, Deputy SNR & Energy Advisor
George Hagerman, VCERC/ Virginia Tech
Nick Konchuba, ACOE
Amy Alton, US Army
Chris Albert, Hunton & Williams
Chris Egghart, DEQ
Christine Porter, US Navy
Danette Poole (alternate), DCR
David Grandis, OAG
Dominick Yacono, US Navy
Doug Waters, US Army
Elizabeth Murphy (alternate), VMRC
Eric Hurlocker, Williams Mullen
Gary Larson, US Navy
George Detweiler, US Coast Guard
Glenda Booth, Audubon
Gwynn Crichton (alternate), TNC
James Key, US Air Force
Jason Wool, Hunton & Williams
Jean Bass, VRA
Jennifer Perkins, DEQ
Mark Dussia, US Navy
Michael Wells, US Air Force
Patrick Trombuy, VA Natl Defense Industrial Auth
Rick Reynolds (alternate), DGIF
Rick Thomas, Timmons Group
Ron Joyner, US Air Force
Ryan Anderson, US Navy
Travis Passey, US Air Force
Jerod Markley, US Navy

DEQ Offshore/Coastal Wind Regulatory Advisory Panel (Wind RAP)
July 7, 2010 Meeting
Draft Meeting Notes

Agenda Item: Introductions

Discussion Leader: Carol Wampler, DEQ
Discussion: The RAP members and other attendees were welcomed. After the introductions, Mr. Paylor introduced Maureen Matsen, Deputy Secretary of Natural Resources and Senior Advisor for Energy to the Governor. The Deputy Secretary explained the primary goal of Governor McDonnell's energy policy is to make Virginia the energy capitol of the east coast. It is recognized that there will be an increased energy demand from a rebounding economy as well as continued technology development that will require additional energy. There is a significant need for a very diverse portfolio of energy generation – one that includes all options to ensure the supply is reliable, efficient, at a reasonable cost and is protective of the environment. The General Assembly has passed legislation that removes obstacles from small energy wind projects which will now be permitted by DEQ. The developers will be taking big risks and the policy of Virginia is to encourage that development tempered with common sense. She acknowledged the vital role of the group's task in furthering that policy and encouraged the members in their work.

Agenda Item: Military Role in Virginia Waters

Discussion Leader: Christine Porter, Naval Facilities Engineering Command, introduced the representatives of the military (Navy, Coastguard and Air Force) who provided presentations on their activities in the Hampton Roads area. Ms Porter noted that the US Army representative could not be present. She indicated that all levels of the military were prepared to assist in finding solutions and addressing the many challenges of offshore wind generation in Virginia waters.

Presentations:

Mr. Jim Casey, U.S Navy, Fleet Forces Command, explained the Navy has a very large presence in the area including six primary Navy installations and over 80,000 active duty personnel. It conducts extensive training daily and nightly in the lower Chesapeake Bay around Hampton Roads and Virginia Beach. The training is in multi-functional disciplines, on and below the water surface, on land and in the air. It includes amphibious warfare/anti-terrorism operations, small boat, submarine and aircraft operations, beach assaults, parachute drops, explosive ordnance placement and disposal, shipboard electronic systems evaluations. It operates a deperming station and a degaussing range for large ships to analyze ship electronic and magnetic signals and conducts ship repair and overhaul activities. Training sites include the lower Chesapeake Bay, Elizabeth, James and York Rivers, Little Creek-Ft. Story area, Naval Station Norfolk NAS Oceana-FCTD Dam Neck and the surrounding air space including areas of the Eastern Shore and as far south as the North Carolina border.

Mr. George Detweiler, U.S. Coast Guard, Headquarters, reviewed the mission and authority of the Coast Guard. The mission is multifaceted and includes maritime safety including aids to navigation and search and rescue, maritime security, maritime mobility, national defense and protection of natural resources. Mr. Detweiler stressed that the Coast Guard does not have permitting authority; however, it works closely with the Army Corps of Engineers, the federal agency with permitting authority for structures and fill in navigable waterways of the United States. He indicated that the Coast Guard would provide valuable input for any project that might impact their mission as such projects could have impacts to shipping channels, harbor entrances, anchorages, routing measures, traditional shipping and other uses including the general public's use of the water via sailing, jet skis, etc.

Captain Travis Passey and Colonel James Key reviewed the jurisdiction and air space used by the Langley Air Force Base, which involves many designated flight paths at different altitudes over the Chesapeake Bay and extends several miles off the eastern shore of Virginia and the coast of North Carolina. There is a known phenomenon of wind generators causing conflict with aircraft and navy vessel

radar, even at high altitudes. The exact cause is still under investigation and is a significant concern for the military.

Ms. Wampler thanked all of the military speakers for explaining their uses of Virginia waters and reiterated the willingness of this RAP and DEQ to work cooperatively with the military and all other stakeholders on issues of common interest and concern. She reminded the group, however, that the issues on which the RAP can work are limited by statute – generally to construction and operation, wildlife and historic resources (including viewsheds).

Break from 11:15 to 11:30.

Agenda Item: VCERC Offshore Wind Project -1

Presenter: George Hagerman, VCERC/ Virginia Tech

Discussion: Dr. Hagerman provided an overview of the assessment conducted to determine the commercial feasibility of wind power generation in the lower Chesapeake Bay, beyond the Air force fly zone. He suggested that a small scale operation (5-10 MW) could cost close to 2 billion dollars. An investment of that magnitude required rigorous study to confirm feasibility. To be commercially viable he suggested that the cost would need to be at or below 15 cents / kw. He provided a cost comparison between the Dominion Power Wise County coal plant and a comparable wind farm. As market conditions dictate, the cost per short ton of coal can fluctuate significantly. As coal approached a cost over $75 per short ton, windmills could be competitive contingent on a number of factors; primary is the need to develop the technology locally (within the U.S.). Currently all technology is manufactured in Europe; local manufacturing could reduce the cost to 10 cents/kw.

He suggested that the lower Chesapeake Bay could provide the necessary research facility the military needs to conduct in-depth research on the radar effects and provide meteorological data indicating the wind gradations across the bay and along the ocean front as well as historical extreme storm conditions data. He provided several options for siting single turbines for study purposes near the Monitor/Merrimac Bridge Tunnel and Newport News, at the mouth of the Bay and out to the federal water limit to evaluate turbine performance in the various wind conditions and speeds. In answer to a question, he suggested that the loss of electricity due to transmission is less than 5% even for an array of turbines several miles offshore. He stressed the need for research and the benefit that a full scale demonstration project could be to Virginia.

Lunch break from 12:00 to 1:00. Ms. Wampler announced her desire to meet for a few minutes with state-agency representatives at the beginning of the lunch break to alert them to a procedural issue on which she requested their cooperation.

Agenda Item: Army Corps of Engineers' Authority

Presenter: Nick Konchuba, Regulatory Section Chief, U.S Army Corps of Engineers

Discussion: Mr. Konchuba provided an overview of the authorities of the Corps of Engineers as expressed in the Clean Water Act of 1972. He explained, however, that the Corps has had authority for permitting structures or dredge/fill material in navigable waterways since the passage of the Rivers and Harbors Act of 1899. Their authority extends to mean high water including tributaries and adjacent wetlands. The individual permit process includes a joint application permit review with the Virginia Marine Resources Commission and includes a public interest review. The public interest review can be linked with other laws including the Endangered Species Act of 1973, Marine, Mammal Protection Act, National Historic Preservation Act of 1966 and the National Environmental Policy Act. The Corps does issue some general permits, however; they are primarily issued for dredging or routine activities. For a wind permit for wind

turbines in federal waters, the Mines, Minerals Service would be the lead agency and coordinate with the Corps and other affected agencies, including the Department of Defense.

Agenda Item: VMRC's Permitting and Lease Authority

Discussion Leader: Tony Watkinson, VMRC

Discussion: Mr. Watkinson provided an overview of the agency and its primary responsibilities, of which one is enforcement of marine regulation for commercial and recreational fishing. In addition, VMRC, jointly with the Corps of Engineers, issues permits for shoreline structures, approximately 2,500 per year. Issues considered during process are: other uses of submerged lands, marine fisheries, tidal wetlands, adjacent or nearby properties, water quality and submerged aquatic vegetation. VMRC also has authority for leases of submerged lands in state waters for minerals, shellfish and renewable energy. Renewable energy projects represent a new area of responsibility; permitting of any facilities will require a balance between economic development and public use of submerged lands.

Agenda Item: Review of Directors' Meeting Regarding DEQ and VMRC Authorities

Discussion Leader: Carol Wampler, DEQ

Discussion: Ms. Wampler introduced Elizabeth Andrews from the Office of the Attorney General, who summarized for the RAP the informal advice she had provided to DEQ concerning the respective statutory authorities of VMRC and DEQ over wind projects in state waters. Ms. Wampler then reported the results of a meeting (July 1, 2010) between the directors of DEQ and VMRC concerning which issues the Offshore RAP should consider to be within its purview, and which would be addressed by VMRC when offshore wind projects are proposed. The directors considered Ms. Andrews' legal analysis as well as policy and administrative factors. Their decisions are summarized as follows:

1. VMRC will handle marine and fisheries wildlife issues, as well as archaeological historic resources issues, via their permit program. The RAP should not address these issues as part of the PBR (and this directive includes not requiring analysis of these issues).

2. DEQ, via the PBR, should address birds and bats, as well as architectural historic resources issues (i.e., historic viewsheds). DEQ, however, is limited by its statute to address these issues only in the construction and operation phases of offshore wind projects -- not in the siting phase.

In overly-simplified terms, VMRC's permit program will address resources under the water, and DEQ's PBR will address resources over the water, as specified in our respective statutes.

As Director Paylor articulated, DEQ does not want to duplicate an existing regulatory program, yet DEQ must carry out its statutory directive to develop a PBR to the extent deemed necessary. As a matter of law and policy, he determined that a PBR is only necessary to address possible protections for (1) avian and bat species, and (2) historic viewsheds, and is not necessary for other natural-resource issues. Commissioner Bowman agreed with this determination as an appropriate way to carve out which issues are under VMRC's permitting purview and which under DEQ's PBR purview.

3. VMRC's lease may or may not be required for a given offshore wind project. That issue remains somewhat "up in the air." So, as an operating principle, we are not going to concern the RAP with VMRC's leasing authority, which arguably might cover all of the "over water" issues that DEQ's PBR will address. It will be determined at a later time how VMRC's leasing authority can or should dovetail with DEQ's PBR authority.

4. The directors were made aware of some instances where onshore and offshore issues bleed into each other (e.g., sea turtles coming ashore to nest). Commissioner Bowman readily recognized that these are issues VMRC is used to addressing, and he and Director Paylor understand that we will be working out these specific onshore/offshore issues as needed.

The RAP briefly discussed these matters.

Break from 2:35 p.m. to 2:50 p.m.

Agenda Item: "Straw Man" Provisions for Historic Resources

Discussion Leader: Roger Kirchen, DHR

Discussion: Mr. Kirchen reviewed suggested language from DHR that had been based upon language approved under the original Wind RAP. Definitions are similar. Several changes were recommended to make it appropriate for use for offshore projects, including the following:

Mitigation Plan language, number 1: add the word "terrestrial" before "resources" to indicate that the permit by rule does not interfere with VMRC authority.

Mitigation Plan language, number 2: change distance from miles of the disturbance zone from 1.5 miles to 5 miles.

Determination of Adverse Impacts language, first paragraph: continue to use "significantly" and not "substantially."

Members of the RAP asked clarifying questions of Mr. Kirchen. He will refine the "straw man" document and then send it to Ms. Wampler for distribution to the RAP prior to the next RAP meeting. At the next meeting, the RAP will discuss substantive concerns with DHR's proposed language, with the goal of reaching consensus on the historic-resource provisions for offshore and coastal wind projects.

Agenda Items: Other Business

Public Forum: No member of the public had filled out a card requesting to speak, so no Public Forum was held.

Announcements: Ms. Wampler noted that, in addition to the RAP's considering "straw man" provisions from DHR regarding historic resources protections, the RAP will also begin consideration of "straw man" provisions from DGIF regarding wildlife protection at its next meeting. She hopes to have both sets of drafts to disseminate to the RAP prior to the next RAP meeting. She asked RAP members please to review these drafts.

The next Offshore RAP meeting will be held at 9:30 on Thursday, July 29. This meeting will be held at DEQ's Piedmont Regional Office in the Short Pump/Glen Allen area. Directions and details about the meeting will be provided.

RAP members had no other issues to bring before the group, and the meeting was adjourned until July 29.